## Posted Streams, Rivers, and Reservoirs

The Commissioner shall have the power, duty, and responsibility to...post or cause to be posted such signs as required to give notice to the public of the potential or actual dangers of specific uses of such waters.

Tennessee Water Quality Control

Act

When streams or lakes are found to have significantly elevated bacteria levels or when fish tissue contaminant levels exceed risk-based criteria, it is the responsibility of the Department of Environment and Conservation to post warning signs so that the public will be aware of the threat to public health.

Consistent with EPA guidance, any stream or reservoir in Tennessee with an advisory is assessed as not meeting the

recreational designated use. Clearly, if fishermen cannot safely eat the fish they catch, the waterbody is not supporting its goal to be fishable. Likewise, streams and lakes with high levels of bacteria are not suitable for recreational activities such as swimming or wading.

#### **Bacteriological Contamination**

The presence of pathogens, disease-causing organisms, affects the public's ability to safely swim, wade, and fish in streams and reservoirs. Pathogen sources include failing septic tanks, collection system failure, failing animal waste systems, or urban runoff. About 147 river miles are posted due to bacterial contamination.

# **Bacteriological Advisories in Tennessee** (August, 2008. This list is subject to revision.)

#### East Tennessee

Stream	Portion	County	Comments
Beaver Creek (Bristol)	TN/VA line to Boone Lake (20.0 miles)	Sullivan	Nonpoint sources in Bristol and Virginia.
Cash Hollow Creek	From Knob Creek to Big Hollow (Mile 0.0 to 1.4)	Washington	Septic tank failures.
Coal Creek	STP to Clinch R. (4.7 miles)	Anderson	Lake City STP.
East Fork Poplar Creek	Mouth to New Hope Pond (Mile 15.0)	Roane, Anderson	Oak Ridge area.
First Creek	From Topeka Street to Ashwood Place (Mile 0.2 to 1.5)	Knox	Knoxville urban runoff
Goose Creek	Entire Stream (4.0 miles)	Knox	Knoxville urban runoff.
Leadvale Creek	Douglas Lake to headwaters (1.5 miles)	Jefferson	White Pine STP.
Little Pigeon River	From Mouth to West Prong of the Little Pigeon River (Mile 0.0 to 4.7)	Sevier	Improper connections to storm sewers, leaking sewers, and failing septic tanks.
Pine Creek	Mile Mouth to Litton Fork (0.0 to 10.1)	Scott	Oneida STP and collection system
Litton Fork of Pine Creek	From Mouth to Grave Hill Road (Mile 0.0 to 1.0)		
South Fork of Pine Creek	From Mouth to unnamed tributary near Carson Cemetery (Mile 0.0 to 0.7)		
East Fork of Pine Creek	Mouth to Park Road (Mile 0.0 to 0.8)		
North Fork of Pine Creek	Entire Stream (1.5 miles)		
Second Creek	From Mouth to headwaters (2.9 miles)	Knox	Knoxville urban runoff.

Stream	Portion	County	Comments
Sinking Creek	From point of subsidence to Catbird Creek (Mile 0.0 to 2.8)	Washington	Agriculture & urban runoff
Sinking Creek Embayment of Fort Loudoun Reservoir	1.5 miles from head of embayment to cave	Knox	Knoxville Sinking Creek STP.
Third Creek	From Fort Loudon Reservoir to East Fork (Mile 0.0 to 1.4), at Highway 40 (Mile 3.3)	Knox	Knoxville urban runoff.
East Fork of Third Creek	From Third Creek to Middlebrook Pike (Mile 0.0 to 0.8)	Knox	Knoxville urban runoff.
Johns Creek	Downstream portion (5.0 miles)	Cocke	Failing septic tanks
Baker Creek	Entire stream (4.4 miles)	Cocke	Failing septic tanks
Turkey Creek	From Mouth to Henry Street (Mile 0.0 to 5.3)	Hamblen	Morristown collection system.
West Prong of Little Pigeon River	From Little Pigeon River to North Park Lane (Mile 0.0 to 17.3)	Sevier	Improper connections to storm sewers, leaking sewers, and failing septic tanks.
Beech Branch	Entire stream (1.0 mile)		
King Branch	Entire stream (2.5 miles)		
Gnatty Branch	Entire stream (1.8 miles)		
Holy Branch	Entire stream (1.0 mile)		
Baskins Branch	Entire stream (1.3 miles)		
Roaring Creek	Entire stream (1.5 miles)		
Dudley Creek	Entire stream (5.7 miles)		

# Southeast Tennessee

Stream	Portion	County	Comments
Chattanooga Creek	Mouth to GA line (7.7 mi.)	Hamilton	Chattanooga collection system.
Little Fiery Gizzard	Upstream natural area to Grundy Lake (3.7 miles).	Grundy	Failing septic tanks in Tracy City.
Clouse Hill Creek	Entire Stream (1.9 miles)		
Hedden Branch	Entire Stream (1.5 miles)		
Oostanaula Creek	From Long Mill Bridge Road to Athens STP (Mile 28.4 -31.2)	McMinn	Athens STP and upstream dairies.
Stringers Branch	From Mouth to Ormand Drive (Mile 0.0 to 5.4)	Hamilton	Red Bank collection system.
Citico Creek	Mouth to headwaters (7.3 miles)	Hamilton	Chattanooga urban runoff and collection system.

# Middle Tennessee

Stream	Portion	County	Comments
Duck River	Old Stone Fort State Park (0.2 miles)	Coffee	Manchester collection system.
Little Duck River	Old Stone Fort State Park (0.2 miles)		
Mine Lick Creek	Baxter STP to Louisville and Nashville RR (Mile 15.3 to 15.8)	Putnam	Baxter STP.

# Middle Tennessee Continued

Stream	Portion	County	Comments	
Nashville Area Brown's Creek	Main Stem (4.3	Davidson	Metro Nashville collection system	
	miles)		overflows and	
Dry Creek	From Mouth to the second bend of the creek (Mile 0.0 to 0.1)		urban runoff.	
Gibson Creek	Mouth to Neeley's Branch (Mile 0.0 to 0.2)			
McCrory Creek	From Mouth to unnamed tributary (Mile 0.0 to 0.2)			
Tributary to McCrory Creek	From Mouth to driveway (Mile 0.0 to 0.1			
Richland Creek	From Mouth to West Park (Mile 0.0 to 2.2)			
Whites Creek	From Mouth to Emerald Creek (Mile 0.0 to 2.1)			
Cumberland River	Bordeaux Bridge (Mile 185.7) to Woodland Street Bridge (Mile 190.6)			

#### Fish Tissue Contamination

Fish are an important part of a balanced diet and a good source of low fat protein. They also provide essential fatty acids that are crucial for the proper functioning of the nervous system and help prevent heart disease. The Department recommends that residents and visitors continue to eat fish from Tennessee rivers and reservoirs, but they should also follow the published advisories on consumption hazards in individual reservoirs.

Approximately 94,400 reservoir acres and 119 river miles are currently posted due to contaminated fish. The contaminants most frequently found at dangerous levels in fish tissue are PCBs, mercury, chlordane, and other organics.

Organic substances and mercury tend to bind with the sediment, settle out of the water, and persist for a very long time. In the sediment, they become part of the aquatic food chain and, over time, concentrate in fish tissue. Contaminants can be found in fish tissue even if the substance has not been used or manufactured in decades.

Waterbodies where fish tissue has levels of contamination that pose a higher than acceptable risk to the public are posted and the public is advised of the danger. Signs are placed at main public access points and a press release is submitted to local newspapers. The list of advisories is also published in TWRA's annual fishing regulations. If needed, TWRA can enforce a fishing ban.

Where contaminants are elevated in fish, they may also be present in other aquatic life as well. Therefore, the public is advised to limit or avoid consumption of other animals such as turtles, crayfish and mussels in waterbodies with a fishing advisory.

In March 2004, the U.S. Department of Health and Human Services, in conjunction with the U.S. Environment Protection Agency, issued a mercury advisory for the consumption of fish and shellfish by pregnant women, nursing mothers, young children, and women who might become pregnant. The advisory specifically warns this sensitive sub-population to avoid eating fish with elevated mercury levels: Shark, Swordfish, King Mackerel, and Tilefish. For more information see EPA's website: <a href="http://www.epa.gov/waterscience/fishadvice/advice.html">http://www.epa.gov/waterscience/fishadvice/advice.html</a>

#### Reducing Risks from Contaminated Fish

The best way to protect yourself and your family from eating contaminated fish is by following the advice provided by the Department of Environment and Conservation. Cancer risk is accumulated over a lifetime of exposure to a carcinogen (cancer-causing agent). For that reason, eating an occasional fish, even from an area with a fishing advisory, will not measurably increase your cancer risk.

At greatest risk are people who eat contaminated fish for years, such as recreational or subsistence fishermen. Some groups of people like children or people with a previous occupational exposure to a contaminant are more sensitive to that pollutant. Studies have shown that contaminants can cross the placental barrier in pregnant women to enter the baby's body, thereby increasing the risk of developmental problems. These substances are also concentrated in breast milk.

The Division's goal in issuing fishing advisories is to provide the information necessary for people to make **informed choices** about their health. People concerned about their health will likely choose not to eat fish from contaminated sites.

If you choose to eat fish in areas with elevated contaminant levels, here is some advice on how to reduce this risk:

- 1. Throw back the big ones. Smaller fish generally have lower concentrations of contaminants.
- 2. Avoid fatty fish. Organic carcinogens such as DDT, PCBs, and dioxin accumulate in fatty tissue. Large carp and catfish tend to have more fat than gamefish. Moreover, the feeding habits of carp, sucker, buffalo, and catfish tend to expose them to the sediments, where contaminants are concentrated. In contrast, however, mercury tends to accumulate in muscle tissue and will tend to concentrate in higher levels in gamefish.
- **3. Wash fish before cleaning.** Some contaminants are concentrated in the mucus, so fish should be washed before they are skinned and filleted.
- **4. Broil or grill your fish.** These cooking techniques allow the fat to drip away. Frying seals the fat and contaminants into the food.
- 5. Throw away the fat if the pollutant is PCBs, dioxin, chlordane or other organic contaminants. Organic pesticides tend to accumulate in fat tissue, so cleaning the fish so the fat is discarded will provide some protection from these contaminates.

#### Fish Tissue Advisories in Tennessee

(August, 2008. This list is subject to revision.)

#### West Tennessee

Stream	County	Portion	HUC Code	Pollutant	Comments
Beech Reservoir	Henderson	Entirety (877 acres)	06040001	Mercury	Precautionary advisory for largemouth bass. *
Loosahatchie River	Shelby	Mile 0.0 - 17.0 (Hwy 14, Austen Peay Highway)	08010209	Chlordane, Other Organics, Mercury	Do not eat the fish.
McKellar Lake	Shelby	Entirety (13 miles)	08010100	Chlordane, Other Organics, Mercury	Do not eat the fish.
Mississippi River	Shelby	Mississippi stateline to just downstream of Meeman-Shelby State Park (31 miles)	08010100	Chlordane, Other Organics, Mercury	Do not eat the fish. Commercial fishing prohibited by TWRA.
North Fork Forked Deer River	Dyer, Gibson	From the mouth of the Middle Fork Forked Deer River (Mile 17.6) upstream to State Highway 188 (Mile 23.6)	08010204	Mercury	Precautionary advisory for largemouth bass. *
Nonconnah Creek	Shelby	From Mouth to Kansas Street (Mile 0.0 to 1.8)	08010201	Chlordane, Other Organics	Do not eat the fish. Advisory ends at Horn Lake Road bridge.
Wolf River	Shelby	From Mouth to Germantown Road (Mile 0.0 - 18.9)	08010210	Chlordane, Other Organics, Mercury	Do not eat the fish.

#### Middle Tennessee

Stream	County	Portion	<b>HUC Code</b>	Pollutant	Comments
Buffalo River	Humphreys, Perry	From the mouth upstream to Highway 438 (Mile 31.6)	06040004	Mercury	Precautionary advisory for smallmouth bass. *
Duck River	Humphreys, Hickman	From mouth of Buffalo River (Mile 15.8) upstream to Interstate 40 (Mile 31.8)	06040003	Mercury	Precautionary advisory for largemouth, smallmouth, and spotted bass. *
Woods Reservoir	Franklin	Entirety (3,908 acres)	06030003	PCBs	Catfish should not be eaten.

#### East Tennessee

Stream	County	Portion	<b>HUC Code</b>	Pollutant	Comments
Boone Reservoir	Sullivan, Washington	Entirety (4,400 acres)	06010102	PCBs, chlordane	Precautionary advisory for carp and catfish. *
Chattanooga Creek	Hamilton	Mouth to Georgia Stateline (11.9 miles)	06020001	PCBs, chlordane	Fish should not be eaten. Also, avoid contact with water.
East Fork of Poplar Creek including Poplar Creek embayment	Anderson, Roane	Mouth to New Hope Pond (Mile 15.0)	06010207	Mercury, PCBs	Fish should not be eaten. Also, avoid contact with water.

Stream	County	Portion	HUC Code	Pollutant	Comments
Emory River	Roane, Morgan	From Highway 27 near Harriman (Mile 12.4) upstream to Camp Austin Road Bridge (Mile 21.8)	06010208	Mercury	Precautionary advisory for all fish. *
Fort Loudoun Reservoir	Loudon, Blount	Entirety (14,600 acres)	06010201	PCBs  Mercury (Upper portion only)	Commercial fishing for catfish prohibited by TWRA. No catfish or largemouth bass over two pounds should be eaten. Do not eat largemouth bass from the Little River embayment. Due to mercury, precautionary advisory for any sized largemouth bass from Highway 129 to the confluence of Holston and French Broad Rivers (534 acres). *
French Broad River	Cocke	From Rankin Bridge (Mile 71.4) to Hwy 321 near Newport (Mile 77.5)	06010105	Mercury	Precautionary advisory for largemouth bass. *
Hiwassee River	Meigs, McMinn, Bradley	From Highway 58 (Mile 7.4) upstream to the railroad bridge just upstream of U. S. Highway 11 (Mile 18.9)	06020002	Mercury	Precautionary advisory for largemouth bass. *
Holston River	Hawkins, Sullivan	From the mouth of Poor Valley Creek embayment (Mile 89.0) upstream to the confluence of the North and South Forks of the Holston near Kingsport (Mile 142.3)	06010104	Mercury	Precautionary advisory for all fish. *

Stream	County	Portion	<b>HUC Code</b>	Pollutant	Comments
Melton Hill Reservoir	Knox, Anderson	Entirety (5,690 acres)	06010207	PCBs	Catfish should not be eaten.
Nickajack Reservoir	Hamilton, Marion	Entirety (10,370 acres)	06020001	PCBs	Precautionary advisory for catfish. *
Norris Reservoir	Campbell, Anderson, Union, Claiborne, Grainger	Clinch River portion (Powell River embayment not included in advisory) (15,213 Acres)	06010205	Mercury	Precautionary advisory for largemouth bass, striped bass, smallmouth bass, and sauger. *
North Fork Holston River	Sullivan, Hawkins	Mile 0.0 - 6.2 (VA stateline)	06010101	Mercury	Do not eat the fish. Advisory goes to TN/VA line.
Sequatchie River	Marion	From the Tennessee River (Mile 0.0) upstream to State Highway 283 near Whitwell (Mile 22.1)	06020004	Mercury	Precautionary advisory for largemouth bass. *
South Holston Reservoir	Sullivan	Portion within Tennessee (7,206 acres)	06010102	Mercury	Precautionary advisory for largemouth bass. *
Tellico Reservoir	Loudon, Monroe	Entirety (16,500 acres)	06010204	PCBs, Mercury	Catfish should not be eaten.
Watauga Reservoir	Carter, Johnson	Entirety (6,427 acres)	06010103	Mercury	Precautionary advisory for largemouth bass and channel catfish. *

Stream	County	Portion	HUC Code	Pollutant	Comments
Watts Bar Reservoir	Roane, Meigs, Rhea, Loudon	Tennessee River portion (38,000 acres)	06010201	PCBs	Catfish, striped bass, & hybrid (striped bass-white bass) should not be eaten. Precautionary advisory for white bass, sauger, carp, smallmouth buffalo and largemouth bass. *
Watts Bar Reservoir	Roane, Anderson	Clinch River arm (1,000 acres)	06010201	PCBs	Striped bass should not be eaten. Precautionary advisory for catfish and sauger. *

<sup>\*</sup>Precautionary Advisory - Children, pregnant women, and nursing mothers should not consume the fish species named. All other persons should limit consumption of the named species to one meal per month.

Additional national fish tissue advisories have been issued for the most sensitive sub-populations: pregnant women, nursing mothers, children, and women who could become pregnant. See the attached joint EPA and FDA advisory.

Where contaminants are elevated in fish, they may also be present in other aquatic life as well. Therefore, the public is advised to limit or avoid consumption of other animals such as turtles, crayfish and mussels in waterbodies with a fishing advisory.



#### U.S. Department of Health and Human Services

U.S. Environmental Protection Agency



EPA-823-R-04-005 March 2004

#### WHAT YOU NEED TO KNOW ABOUT MERCURY IN FISH AND SHELLFISH

2004 EPA and FDA ADVICE FOR:
WOMEN WHO MIGHT BECOME PREGNANT
WOMEN WHO ARE PREGNANT
NURSING MOTHERS
YOUNG CHILDREN

Fish and shellfish are an important part of a healthy diet. Fish and shellfish contain high-quality protein and other essential nutrients, are low in saturated fat, and contain omega-3 fatty acids. A well-balanced diet that includes a variety of fish and shellfish can contribute to heart health and children's proper growth and development. So, women and young children in particular should include fish or shellfish in their diets due to the many nutritional benefits.

However, nearly all fish and shellfish contain traces of mercury. For most people, the risk from mercury by eating fish and shellfish is not a health concern. Yet, some fish and shellfish contain higher levels of mercury that may harm an unborn baby or young child's developing nervous system. The risks from mercury in fish and shellfish depend on the amount of fish and shellfish eaten and the levels of mercury in the fish and shellfish. Therefore, the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) are advising women who may become pregnant, pregnant women, nursing mothers, and young children to avoid some types of fish and eat fish and shellfish that are lower in mercury.

By following these 3 recommendations for selecting and eating fish or shellfish, women and young children will receive the benefits of eating fish and shellfish and be confident that they have reduced their exposure to the harmful effects of mercury.

- Do not eat Shark, Swordfish, King Mackerel, or Tilefish because they contain high levels of mercury.
- Eat up to 12 ounces (2 average meals) a week of a variety of fish and shellfish that are lower in mercury.
  - Five of the most commonly eaten fish that are low in mercury are shrimp, canned light tuna, salmon, pollock, and catfish.
  - Another commonly eaten fish, albacore ("white") tuna has more mercury than canned light tuna. So, when choosing your two meals of fish and shellfish, you may eat up to 6 ounces (one average meal) of albacore tuna per week.
- 3. Check local advisories about the safety of fish caught by family and friends in your local lakes, rivers, and coastal areas. If no advice is available, eat up to 6 ounces (one average meal) per week of fish you catch from local waters, but don't consume any other fish during that week.

Follow these same recommendations when feeding fish and shellfish to your young child, but serve smaller portions.

#### Frequently Asked Questions about Mercury in Fish and Shellfish:

- "What is mercury and methylmercury?"
  - Mercury occurs naturally in the environment and can also be released into the air through industrial pollution. Mercury falls from the air and can accumulate in streams and oceans and is turned into methylmercury in the water. It is this type of mercury that can be harmful to your unborn baby and young child. Fish absorb the methylmercury as they feed in these waters and so it builds up in them. It builds up more in some types of fish and shellfish than others, depending on what the fish eat, which is why the levels vary.
- 2. "I'm a woman who could have children but I'm not pregnant so why should I be concerned about methylmercury?"

  If you regularly eat types of fish that are high in methylmercury, it can accumulate in your blood stream over time. Methylmercury is removed from the body naturally, but it may take over a year for the levels to drop significantly. Thus, it may be present in a woman even before she becomes pregnant. This is the reason why women who are trying to become pregnant should also avoid eating certain types of fish.
- 3. "Is there methylmercury in all fish and shellfish?"

  Nearly all fish and shellfish contain traces of methylmercury. However, larger fish that have lived longer have the highest levels of methylmercury because they've had more time to accumulate it. These large fish (swordfish, shark, king mackerel and tilefish) pose the greatest risk. Other types of fish and shellfish may be eaten in the amounts recommended by FDA and EPA.
- 4. "I don't see the fish I eat in the advisory. What should I do?"

  If you want more information about the levels in the various types of fish you eat, see the FDA food safety website. <a href="www.cfsan.fda.gov/~frf/sea-mehg.html">www.cfsan.fda.gov/~frf/sea-mehg.html</a> or the EPA website at <a href="www.epa.gov/ost/fish">www.epa.gov/ost/fish</a>.
- 5. "What about fish sticks and fast food sandwiches?"
  Fish sticks and "fast-food" sandwiches are commonly made from fish that are low in mercury.
- 6. "The advice about canned tuna is in the advisory, but what's the advice about tuna steaks?" Because tuna steak generally contains higher levels of mercury than canned light tuna, when choosing your two meals of fish and shellfish, you may eat up to 6 ounces (one average meal) of tuna steak per week.
- 7. "What if I eat more than the recommended amount of fish and shellfish in a week?" One week's consumption of fish does not change the level of methylmercury in the body much at all. If you eat a lot of fish one week, you can cut back for the next week or two. Just make sure you average the recommended amount per week.
- 8. "Where do I get information about the safety of fish caught recreationally by family or friends?"

  Before you go fishing, check your Fishing Regulations Booklet for information about recreationally caught fish. You can also contact your local health department for information about local advisories. You need to check local advisories because some kinds of fish and shellfish caught in your local waters may have higher or much lower than average levels of mercury. This depends on the levels of mercury in the water in which the fish are caught. Those fish with much lower levels may be eaten more frequently and in larger amounts.
- For further information about the risks of mercury in fish and shellfish call the U.S. Food and Drug Administration's food information line toll-free at 1-888-SAFEFOOD or visit FDA's Food Safety website www.cfsan.fda.gov/seafood1.html
- For further information about the safety of locally caught fish and shellfish, visit the Environmental Protection Agency's Fish Advisory website <a href="https://www.epa.gov/ost/fish">www.epa.gov/ost/fish</a> or contact your State or Local Health Department. A list of state or local health department contacts is available at <a href="https://www.epa.gov/ost/fish">www.epa.gov/ost/fish</a>. Click on Federal, State, and Tribal Contacts. For information on EPA's actions to control mercury, visit EPA's mercury website at <a href="https://www.epa.gov/mercury">www.epa.gov/mercury</a>.

This document is available on the web at http://www.cfsan.fda.gov/~dms/admehg3.html.



#### U.S. Department of Health and Human Services and U.S. Environmental Protection Agency



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# Mercury Levels in Commercial Fish and Shellfish Return to Advisory on Mercury in Seafood See also Mercury in Fish: FDA Monitoring Program

Table 1. Fish and Shellfish With Highest Levels of Mercury						
SPECIES	MERCUF	RY CONCENT	ration	l (PPM)	NO. OF	SOURCE OF
SPECIES	MEAN	MEDIAN	MIN	MAX	SAMPLES	DATA
MACKEREL KING	0.73	NA	0.23	1.67	213	GULF OF MEXICO REPORT 2000
SHARK	0.99	0.83	ND	4.54	351	FDA SURVEY 1990-02
SWORDFISH	0.97	0.86	0.10	3.22	605	FDA SURVEY 1990-02
TILEFISH (Gulf of Mexico)	1.45	NA	0.65	3.73	60	NMFS REPORT 1978

Table 2. Fish and Shellfish With Lower Levels of Mercury							
SPECIES	MERC	URY CONC (PPM		TION	NO. OF	SOURCE OF DATA	
	MEAN	MEDIAN	MIN	MAX	SAMPLES		
ANCHOVIES	0.04	NA	ND	0.34	40	NMFS REPORT 1978	
BUTTERFISH	0.06	NA	ND	0.36	89	NMFS REPORT 1978	
CATFISH	0.05	ND	ND	0.31	22	FDA SURVEY 1990- 02	
CLAMS	ND	ND	ND	ND	6	FDA SURVEY 1990- 02	
COD	0.11	0.10	ND	0.42	20	FDA SURVEY 1990- 03	
CRAB <sup>3</sup>	0.06	ND	ND	0.61	59	FDA SURVEY 1990- 02	
CRAWFISH	0.03	0.03	ND	0.05	21	FDA SURVEY 2002- 03	
CROAKER (Atlantic)	0.05	0.05	0.01	0.10	21	FDA SURVEY 1990- 03	
FLATFISH <sup>2</sup>	0.05	0.04	ND	0.18	22	FDA SURVEY 1990- 02	
HADDOCK	0.03	0.04	ND	0.04	4	FDA SURVEY 1990- 02	
HAKE	0.01	ND	ND	0.05	9	FDA SURVEY 1990- 02	
HERRING	0.04	NA	ND	0.14	38	NMFS REPORT 1978	

JACKSMELT	0.11	0.06	0.04	0.50	16	FDA SURVEY 1990- 02
LOBSTER (Spiny)	0.09	0.14	ND	0.27	9	FDA SURVEY 1990- 02
MACKEREL ATLANTIC (N. Atlantic)	0.05	NA	0.02	0.16	80	NMFS REPORT 1978
MACKEREL CHUB (Pacific)	0.09	NA	0.03	0.19	30	NMFS REPORT 1978
MULLET	0.05	NA	ND	0.13	191	NMFS REPORT 1978
OYSTERS	ND	ND	ND	0.25	34	FDA SURVEY 1990- 02
PERCH OCEAN	ND	ND	ND	0.03	6	FDA SURVEY 1990- 02
PICKEREL	ND	ND	ND	0.06	4	FDA SURVEY 1990- 02
POLLOCK	0.06	ND	ND	0.78	37	FDA SURVEY 1990- 02
SALMON (Canned)	ND	ND	ND	ND	23	FDA SURVEY 1990- 02
SALMON (Fresh/Frozen)	0.01	ND	ND	0.19	34	FDA SURVEY 1990- 02
SARDINE	0.02	0.01	ND	0.04	22	FDA SURVEY 2002- 03
SCALLOPS	0.05	NA	ND	0.22	66	NMFS REPORT 1978
SHAD (American)	0.07	NA	ND	0.22	59	NMFS REPORT 1978
SHRIMP	ND	ND	ND	0.05	24	FDA SURVEY 1990- 02

SQUID	0.07	NA	ND	0.40	200	NMFS REPORT 1978
TILAPIA	0.01	ND	ND	0.07	9	FDA SURVEY 1990- 02
TROUT (Freshwater)	0.03	0.02	ND	0.13	17	FDA SURVEY 2002- 03
TUNA (Canned, Light)	0.12	0.08	ND	0.85	131	FDA SURVEY 1990- 03
WHITEFISH	0.07	0.05	ND	0.31	25	FDA SURVEY 1990- 03
WHITING	ND	ND	ND	ND	2	FDA SURVEY 1990- 02

Table 3. Mercury Levels of Other Fish and Shellfish							
SPECIES	MERC	URY CONC (PPM		TION	NO. OF	SOURCE OF DATA	
	MEAN	MEDIAN	MIN	MAX	SAMPLES		
BASS (Saltwater) <sup>1</sup>	0.27	0.15	0.06	0.96	35	FDA SURVEY 1990- 03	
BLUEFISH	0.31	0.30	0.14	0.63	22	FDA SURVEY 2002-03	
BUFFALOFISH	0.19	0.14	0.05	0.43	4	FDA SURVEY 1990-02	
CARP	0.14	0.14	0.01	0.27	2	FDA SURVEY 1990-02	
CROAKER WHITE (Pacific)	0.29	0.28	0.18	0.41	15	FDA SURVEY 1990-03	
GROUPER	0.55	0.44	0.07	1.21	22	FDA SURVEY 2002-03	
HALIBUT	0.26	0.20	ND	1.52	32	FDA SURVEY 1990-02	

LOBSTER (Northern/ American)	0.31	NA	0.05	1.31	88	NMFS REPORT 1978
MACKEREL SPANISH (Gulf of Mexico)	0.45	NA	0.07	1.56	66	NMFS REPORT 1978
MACKEREL SPANISH (S. Atlantic)	0.18	NA	0.05	0.73	43	NMFS REPORT 1978
MARLIN	0.49	0.39	0.10	0.92	16	FDA SURVEY 1990-02
MONKFISH	0.18	NA	0.02	1.02	81	NMFS REPORT 1978
ORANGE ROUGHY	0.54	0.56	0.30	0.80	26	FDA SURVEY 1990-03
PERCH (Freshwater)	0.14	0.15	ND	0.31	5	FDA SURVEY 1990-02
SABLEFISH	0.22	NA	ND	0.70	102	NMFS REPORT 1978
SCORPIONFISH	0.29	NA	0.02	1.35	78	NMFS REPORT 1978
SHEEPSHEAD	0.13	NA	0.02	0.63	59	NMFS REPORT 1978
SKATE	0.14	NA	0.04	0.36	56	NMFS REPORT 1978
SNAPPER	0.19	0.12	ND	1.37	25	FDA SURVEY 2002-03
TILEFISH (Atlantic)	0.15	0.10	0.06	0.53	17	FDA SURVEY 2002-03
TUNA (Canned, Albacore)	0.35	0.34	ND	0.85	179	FDA SURVEY 1990-03
TUNA (Fresh/Frozen)	0.38	0.30	ND	1.30	131	FDA SURVEY 1990-02
WEAKFISH (Sea Trout)	0.25	0.16	ND	0.74	27	FDA SURVEY 1990-03

Source of data: FDA Surveys 1990-2003

- " National Marine Fisheries Service Survey of Trace Elements in the Fishery Resource" Report 1978
- " The Occurrence of Mercury in the Fishery Resources of the Gulf of Mexico" Report 2000

Market share calculation based on 2001 National Marine Fisheries Service published landings data

\* Mercury was measured as Total Mercury and/or Methylmercury ND - mercury concentration below the Level of Detection (LOD=0.01ppm)

NA - data not available

<sup>1</sup> Includes: Sea bass/ Striped Bass/ Rockfish

<sup>2</sup> Includes: Flounder, Plaice, Sole

<sup>3</sup> Includes: Blue, King, Snow

Advisory on Mercury in Seafood

Mercury in Fish: FDA Monitoring Program

Pesticides and Chemical Contaminants

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